CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.10/VMK/WMM/Gradation/2014-15

16.02.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. V. Mohan Kumar,** Contractor, Bangalore.

Name of Work : Filling of pot holes in Ward No.10 (Doddabommasandra area), Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/238/2014-15 Dated: 23.01.2015

Date of Testing : 16.02.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7820**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	185	185	2.4	97.6	95-100
22.4	2650	2835	36.3	63.7	60-80
11.2	1255	4090	52.3	47.7	40-60
4.75	1035	5125	65.5	34.5	25-40
2.36	890	6015	76.9	23.1	15-30
0.600	720	6735	86.1	13.9	8-22
0.075	795	7530	96.3	3.7	0-8

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

Civil-Tech Consultants & Engineers Bangalore

VISHWANATH. I.A.
Chief Executive Officer

AE W-10

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.

Tele Fax : 23223227, Website : www.civiltechconsultants.com

E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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Job No.: CTCE/BBMP/W.No.10/VMK/WMM/Gradation/2014-15

19.02.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. V. Mohan Kumar,** Contractor, Bangalore.

Name of Work : Filling of pot holes in Ward No.10 (Doddabommasandra area), Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : EE/BTP/BBMP/E-PMT/238/2014-15 Dated: 23.01.2015

Date of Testing : 19.02.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8445**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	250	250	3.0	97.0	95-100
22.4	2850	3100	36.7	63.3	60-80
11.2	1310	4410	52.2	47.8	40-60
4.75	1120	5530	65.5	34.5	25-40
2.36	925	6455	76.4	23.6	15-30
0.600	855	7310	86.6	13.4	8-22
0.075	780	8090	95.8	4.2	0-8

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Chief Executive Officer

Jadhav
AE W-10

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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Job No: CTCE/BBMP/W.No.10/VMK/BC/Bitumen/2014-15 19.02.2015

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE

As per IS2386 and IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	**Mr. V. Mohan Kumar,** Contractor, Bangalore.
NAME OF THE WORK	Filling of pot holes in Ward No.10 (Doddabommasandra area), Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	EE/BTP/BBMP/E-PMT/238/2014-15 Dated: 23.01.2015
SAMPLE I/D	Pot holes filling to roads in Ward No.10.
DATE OF TESTING	19.02.2015

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474.5	475.5
3. Weight of Asphalt and Mineral matter Extracted, g	25.5	24.5
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	25.5	24.5
7. Bitumen content in %	5.10	4.90
8. Average	**5.00**	

GRADATION AFTER EXTRACTION

TABLE - 1

SIEVE SIZE	Percent Passing, %		JOBMIX
mm	Sample 1	Sample 2	Gradation
19	100.00	100.00	100
13.2	85.25	86.32	79-100
9.5	75.22	76.32	70-88
4.75	60.22	63.32	53-71
2.36	45.22	49.62	42-58
1.18	40.22	41.22	34-48
0.6	32.62	31.22	26-38
0.3	20.22	21.23	18-28
0.15	17.52	18.32	12-20
0.075	6.32	5.26	4-10

Note:

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Job No: CTCE/BBMP/W.No.10/VMK/BC/Bitumen/2014-15 21.02.2015

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE

As per IS2386 and IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	**Mr. V. Mohan Kumar,** Contractor, Bangalore.
NAME OF THE WORK	Filling of pot holes in Ward No.10 (Doddabommasandra area), Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	EE/BTP/BBMP/E-PMT/238/2014-15 Dated: 23.01.2015
SAMPLE I/D	Pot holes filling to roads in Ward No.10.
DATE OF TESTING	21.02.2015

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	475	474
3. Weight of Asphalt and Mineral matter Extracted, g	25	26
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	25	26
7. Bitumen content in %	5.00	5.20
8. Average	**5.10**	

GRADATION AFTER EXTRACTION

TABLE - 1

SIEVE SIZE	Percent Passing, %		JOBMIX
mm	Sample 1	Sample 2	Gradation
19	100.00	100.00	100
13.2	84.56	87.23	79-100
9.5	76.36	75.22	70-88
4.75	61.22	62.32	53-71
2.36	46.32	43.65	42-58
1.18	41.22	39.65	34-48
0.6	33.26	30.80	26-38
0.3	22.32	23.32	18-28
0.15	16.52	15.32	12-20
0.075	5.23	5.98	4-10

Note:

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